

# **CULTURAL RESOURCES SURVEY OF THE SAGE MILL 115kV PROJECT, AIKEN COUNTY, SOUTH CAROLINA**



**CHICORA RESEARCH CONTRIBUTION 438**

# **CULTURAL RESOURCES SURVEY OF THE SAGE MILL 115kV PROJECT, AIKEN COUNTY, SOUTH CAROLINA**

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**CHICORA RESEARCH CONTRIBUTION 438**



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## ABSTRACT

This study reports on an intensive cultural resources survey of a 6.1 acre substation in the northwest portion of Aiken County, near the village of Graniteville, South Carolina. The work was conducted to assist Central Electric Power Cooperative in complying with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The lot is to be used by Aiken Electric Cooperative, Inc. for the construction of a distribution substation. The southern portion of the tract slopes down to the north.

The proposed substation will require the clearing of the area, followed by construction of the proposed facility. These activities have the potential to affect archaeological and historical sites and this survey was conducted to identify and assess archaeological and historical sites that may be on or within sight of the substation lot. For this study an area of potential effect (APE) 0.5 mile around the substation was assumed.

An investigation of the archaeological site files at the S.C. Institute of Archaeology and Anthropology produced one previously identified site (38AK616) in the APE. The site is a small prehistoric lithic scatter that was recommended not eligible for the National Register of Historic Places.

The S.C. Department of Archives and History GIS was consulted for any previously recorded sites. One site, 519-1005 or Fields Cemetery, was found in the APE. This ca. 1920 cemetery, which was found during the 1988 survey of eastern Aiken County (Fick and Schneider 1988), has been determined not eligible for the National Register. The comprehensive architectural survey is thought to be complete.

The archaeological survey of the substation lot incorporated shovel testing at 100-foot intervals along transects placed at 100-foot intervals along the existing transmission line. All shovel test fill was screened through ¼-inch mesh and the shovel tests were backfilled at the completion of the study. A total of 34 shovel tests were excavated along 11 transect lines.

As a result of these investigations no sites were identified. This is likely due to the distance from a permanent water source and the excessively drained soils.

A survey of public roads within a 0.5 mile of the proposed undertaking was conducted in an effort to identify any architectural sites over 50 years old which also retained their integrity. No such sites were found beyond Fields Cemetery (519-1005), consistent with the architectural survey (Fick and Schneider 1988).

Finally, it is possible that archaeological remains may be encountered in the project area during clearing activities. Crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).



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## INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Tommy L. Jackson of Central Electric Power Cooperative in Columbia, South Carolina. The work was conducted to assist Aiken Electric Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of a lot measuring about 6.1 acres for use as a substation situated in northwestern Aiken County near the town of Graniteville (Figure 1). The substation lot will connect to an existing transmission corridor to the south.

The lot consists of level land to the south, which slopes down to the north and is grown into a mixed pine and hardwood forest. Bettis Academy Road (S-144) is the eastern boundary while Fields Cemetery Road runs east-west through the tract (Figure 2).

The lot, as previously mentioned, is intended to be used as a substation for a 115kV station. Landscape alteration, primarily clearing, subsequent erection of the poles and other facilities, erecting lines, and long-term maintenance of the substation will cause damage to the ground surface and any archaeological resources that may be present in the survey area.

Construction, operation, and maintenance of the substation may also have an impact on historic resources in the project area. Although the project will not remove any structures, substations (as well as other above grade projects) may detract from the visual integrity of historic properties, creating what many consider discordant surroundings. As a result, this architectural survey uses an area of potential effect

(APE) about 0.5 mile in diameter around the proposed facility. No structures are in immediate view of the tract.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this portion of Aiken County.

We were requested by Mr. Tommy L. Jackson of Central Electric Power Cooperative to perform a cultural resources survey on January 4, 2006. This included examination of the site files at the S.C. Institute of Archaeology and Anthropology. As a result of that work one previously identified site was found. The site, 38AK616, is a prehistoric lithic scatter recommended not eligible for the National Register of Historic Places (Adams 1993).

Initial background investigations also incorporated a review of the site files at the South Carolina Department of Archives and History. As a result of that work one site (Fields Cemetery, 519-1005) was identified in the 0.5 mile APE. A comprehensive survey has been performed for this portion of Aiken County, which identified the cemetery, and found the site not eligible for the National Register. This information is thought to be complete (see Fick and Schneider 1988).

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted on January 26, 2006 by Ms. Nicole Southerland and Ms. Julie Poppell under the direction of Dr. Michael Trinkley.



CULTURAL RESOURCES SURVEY OF THE SAGE MILL 115kV PROJECT

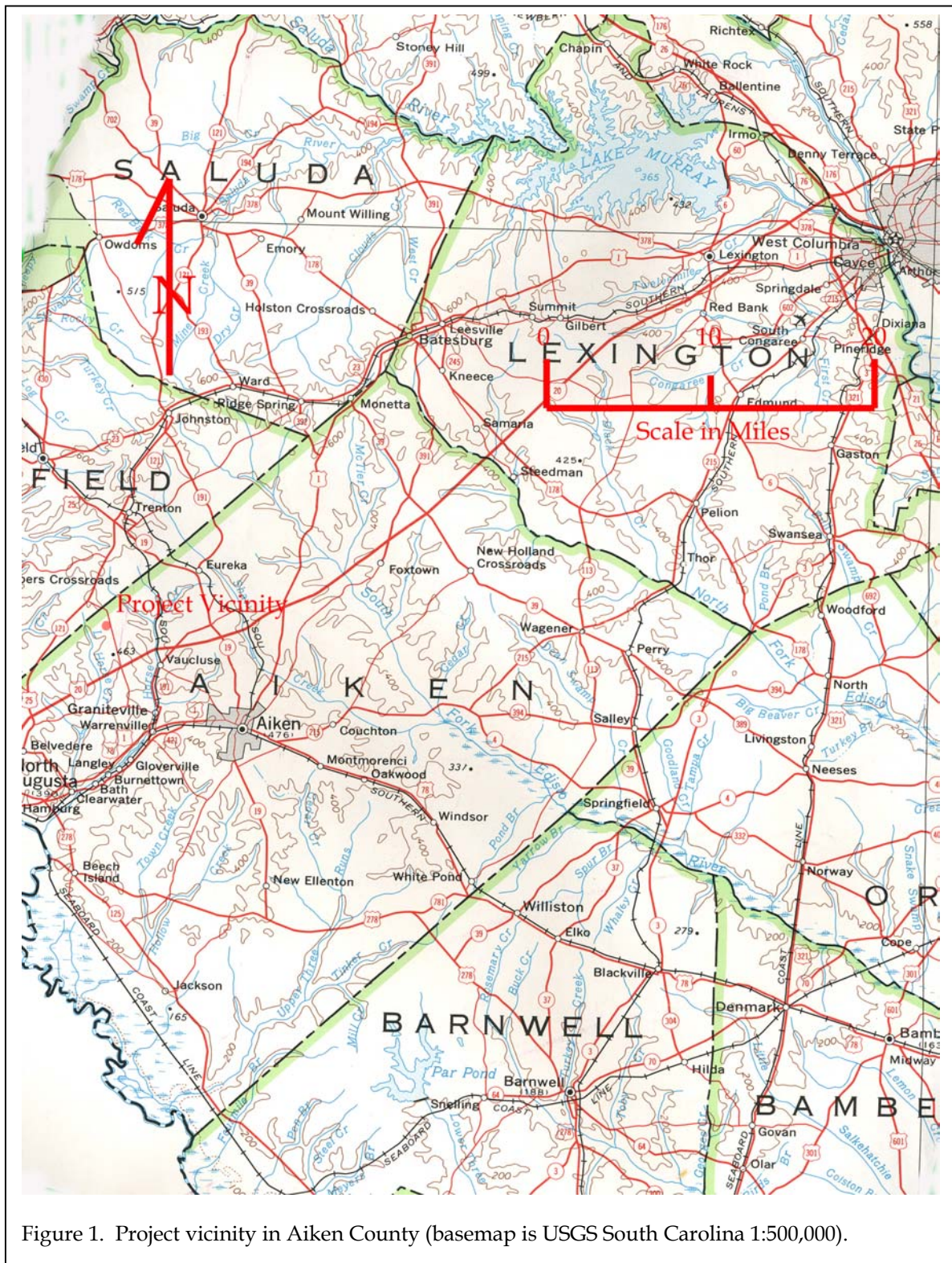


Figure 1. Project vicinity in Aiken County (basemap is USGS South Carolina 1:500,000).



## INTRODUCTION

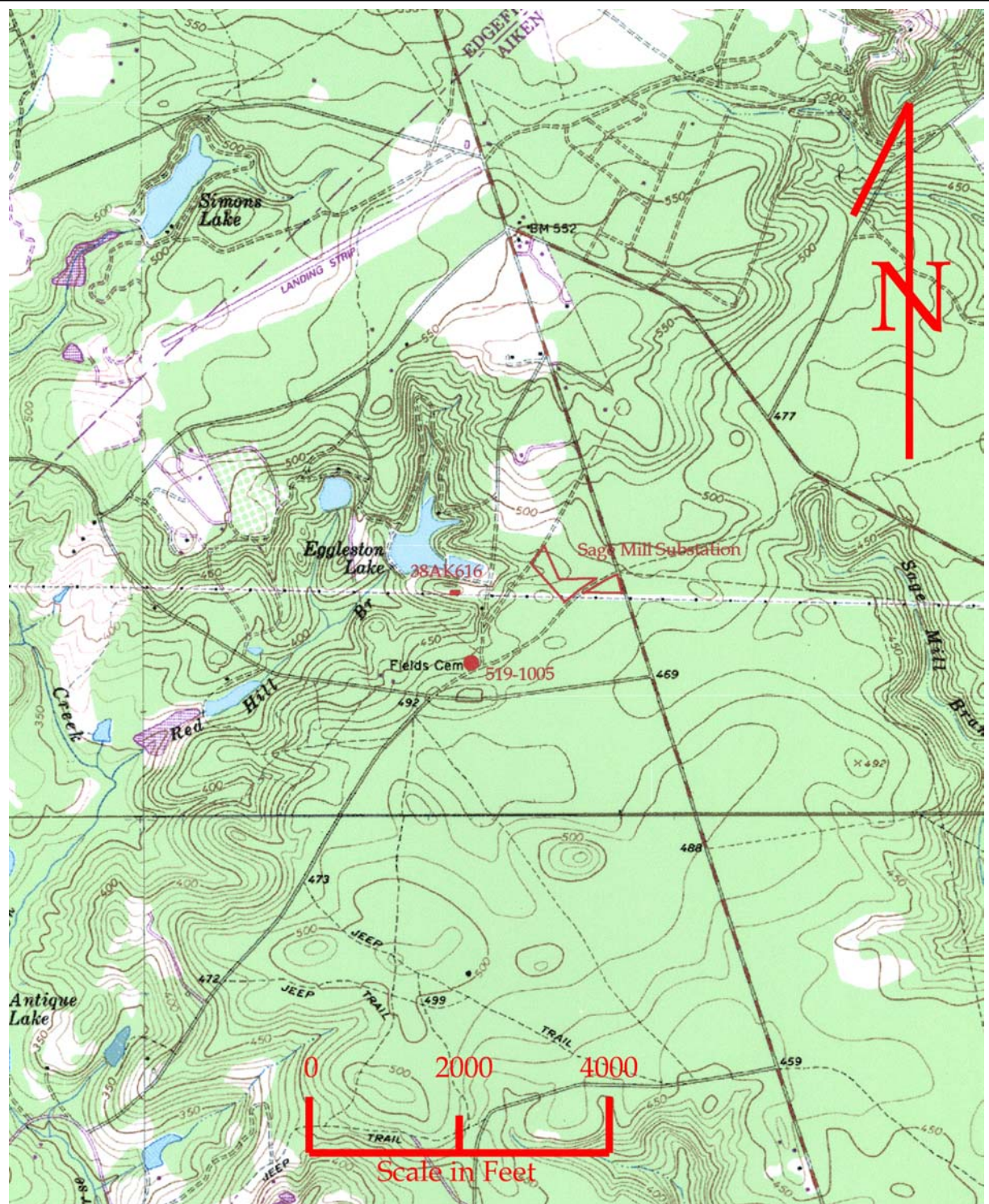


Figure 2. Project area and previously identified sites (basemap is USGS Trenton7.5').

This report details the investigation of the project area undertaken by Chicora Foundation and the results of that investigation.



## ENVIRONMENTAL BACKGROUND

### Physiography and Geology

Aiken County is located midway between the mountains and the coast. On the west, the County is separated from Georgia by the Savannah River. To the north it is bordered by Edgefield and Saluda counties. To the east lays Lexington County with the border established by Chiquapin Creek and the North Edisto River. To the south Aiken County is bordered by Barnwell and Orangeburg counties. It is situated about 60 miles southwest of Columbia and 125 miles northwest of Charleston.

The topography varies dramatically as one moves from the Southern Coastal Plain in the southeastern portion of the county, which is nearly level to gently sloping, into the Carolina Sandhills, which are characterized by more moderately steep topography. The Coastal Plain accounts for about 15% of the county, while the Sandhills account for roughly 80%. In the northwestern corner of Aiken County there is a small area of Piedmont terrain, where the soils are dominantly sloping to very steep. Elevations in the county range from about 100 feet above mean sea level (AMSL) along the Savannah River to about 635 feet AMSL in the northern portions (Rogers 1985:2).

The project

area is found in the area typically called the Sandhills, about 10 miles north of the City of Aiken near the town of Graniteville. The project area is level to the south, with a gradual slope down toward the north. Elevations in the study area are about 470 to 490 feet AMSL.

The Carolina Sandhills extend somewhat intermittently across the midlands of South Carolina, just below the fall line, in an irregular belt 5 to 30 miles wide. The fall line itself was sculpted by the strong erosion of rivers and streams passing from the hard crystalline bedrocks of the Piedmont into the loose, unconsolidated sands of the Coastal Plain. It is along this fall line where the rapidly descending rivers form shoals.

The relationship of the Sandhills to these related physiographic features has been long debated, with a common explanation being that



Figure 3. View of mixed pines and hardwoods in the survey area.



Figure 4. View of Fields Cemetery Road through the project area.

the Sandhills are the remnants of former beaches of the Cretaceous period about 130 million years ago (Barry 1980:97). Arguing against this, however, is the realization that in many areas, the Sandhills are higher than the adjacent Piedmont. It seems more likely that this region represents the highly weathered, and discontinuous, remnants of the continental phase of the Tuscaloosa formation which dates back to the Mesozoic (Duke 1961).

Regardless, these questions of geology have little impact on the use of the Sandhills by either prehistoric or historic people. More important to our understanding of past lifeways are the soils, climate, and flora of the Sandhills.

### Soils

From a soils perspective the Sandhills tend to be characterized by excessively drained sands found on 2 to 15% slopes and ridges. Well drained to moderately well drained medium to fine textured soils with slightly compacted subsoils are found at the base of these slopes, although still on gently sloping topography. Excessively drained soils with loamy, compact subsoils are typically found on positions where the slopes break to meet the streams. Overall, inherent fertility and organic content of the soils

are low. Leaching of plant nutrients is rapid and the soils are strongly acid. These features tend to give the Sand Hills a rather bleak and monotonous landscape.

In the project area the soils are broadly classified as the Troup-Lakeland-Fuquay Complex. These soils are well drained and typically have a loamy subsoil. Rogers (1985:Map 24) reveals that the study area consists entirely of Lakeland sands. These are excessively drained soils that are formed in sandy marine sediments and are

found on long, broad ridges and smooth side slopes. They exhibit an A horizon of dark gray (10YR4/1) sand to a depth of about 0.3 foot, under which is a grayish brown (10YR5/2) sand to a depth of about 0.7 feet. The subsoil is a yellow (10YR7/6) sand that occurs to a depth of 3.0 feet.

Aiken County is just outside the area studied by Trimble (1974), although adjacent Edgefield County was found to have lost over a foot of soil to erosion and the study area is part of the Cotton Plantation Area, recognized for its high Antebellum erosive land use with Postbellum continuation. This area, because of the nature of the soils, the type of agricultural products grown, and the form of tenancy common, suffered the greatest erosion in the South. Lowry (1934) found that the level sandy soils of the region suffered little or no erosion. Based on this information it seems likely that the study area has suffered little or no erosion.

### Climate

Moving to the climate, this portion of South Carolina is affected by the unusual convergence of three different weather systems. Those from the west tend to stall in the

Appalachian Mountains, moist warm air masses from the Gulf of Mexico move into the area, and coastal systems come in off the Atlantic Ocean. The result, however, is far from unpleasant. In fact, Aiken has been known for nearly 150 years as a health resort, because of its weather. The average winter temperature of 48° F and the average summer temperature of 79° F confirm the generally mild climate. There are 48 inches of annual precipitation, with over half falling in the growing season (Rogers 1985:1). In spite of this, Brooks and Crass suggest an element of uncertainty in the rainfall, with the amount occurring during the prime growing season of such crops as cotton or corn having been marginal. They suggest that this depressed "productivity relative to labor input" and encouraged "a broad spectrum subsistence base" (Brooks and Crass 1991:10).

### **Floristics**

Perhaps the most noticeable feature about the Sandhills, however, is its characteristically xerophytic vegetation. Found where there is an extremely permeable layer of sandy soil that is leached of nutrients, this pattern is maintained by fire. Curiously, the vegetational pattern can quickly change, however, depending on such factors as the presence of clay subsoil and the depth of the water table. Barry remarks, for example:

the complete transition from a xeric turkey oak barren to a hydric bay or pocosin can occur within a remarkably short distance, often with very little ecotone (Barry 1980:100).

While Turkey Oak Barrens and Scrub Oak Barrens occur in the vicinity of the project area, the more dominant vegetation is the Xeric Pine-Mixed Hardwood, evidencing a slightly more mesic condition. However, it should be cautioned that the area has undergone extensive alterations through time, so that the vegetation present today bears likely little resemblance to the natural

vegetation of the region.

It seems likely that this region historically would have been characterized by loblolly pines, perhaps red cedar, and post oak. Hickories would have included primarily the pignut hickory. Understory plants, then as now, would include dogwood, sassafras, blackgum, and persimmon.



## PREHISTORIC AND HISTORIC OVERVIEW

### Previous Research

Of the 85 reports concerning Aiken County listed by Derting et al. (1991), nearly 24% (n=20) are the result of relatively small, or at least constrained, surveys associated with highway projects, while an additional 30 studies (35%) are associated with the on-going archaeological and historical research for the Department of Energy at the Savannah River Plant. Other major "themes" in the archaeological research of Aiken County include work at Fort Moore, Coker Springs, and Silver Bluff.

In the immediate project area, there have been at least two surveys. One to the east, just across Bettis Academy Road (S-144) was a reconnaissance of 1600 acres (deNeeve 2005) while the other was the 1993 survey of the transmission line that runs through the current survey area. Within 10 miles is at least one more survey for a substation (Southerland and Trinkley 2004).

Several previous published archaeological studies are available for the Aiken (and Barnwell) area of South Carolina to provide background, including the synthetic works from the Savannah River Plant. Sassaman et al. (1990) discuss the prehistory of the region, providing a framework of current research and site/settlement models, while Brooks and Crass (1991) provide a somewhat more modest effort for the historic period in the general vicinity. These studies should be consulted for additional information on the archaeological context of the project area.

### Prehistoric Overview

#### **Paleoindian Period**

The Paleoindian Period, most commonly

dated from about 12,000 to 10,000 B.P., is evidenced by basally thinned, side-notch projectile points; fluted, lanceolate projectile points, side scrapers, end scrapers; and drills (Coe 1964; Michie 1977; Williams 1965). Oliver (1981, 1985) has proposed to extend the Paleoindian dating in the North Carolina Piedmont to perhaps as early as 14,000 B.P., incorporating the Hardaway Side-Notched and Palmer Corner-Notched types, usually accepted as Early Archaic, as representatives of the terminal phase. This view, verbally suggested by Coe for a number of years, has considerable technological appeal.<sup>1</sup> Oliver suggests a continuity from the Hardaway Blade through the Hardaway-Dalton to the Hardaway Side-Notched, eventually to the Palmer Side-Notched (Oliver 1985:199-200). While convincingly argued, this approach is not universally accepted.

The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented toward the exploitation of now extinct mega-fauna" (Michie 1977:124). Survey data for Paleoindian tools, most notably fluted points, is somewhat dated, but has been summarized by Charles and Michie (1992). They reveal a

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<sup>1</sup> While never discussed by Coe at length, he did observe that many of the Hardaway points, especially from the lowest contexts, had facial fluting or thinning which, "in cases where the side-notches or basal portions were missing, . . . could be mistaken for fluted points of the Paleo-Indian period" (Coe 1964:64). While not an especially strong statement, it does reveal the formation of the concept. Further insight is offered by Ward's (1983:63) all too brief comments on the more recent investigations at the Hardaway site (see also Daniel 1992).



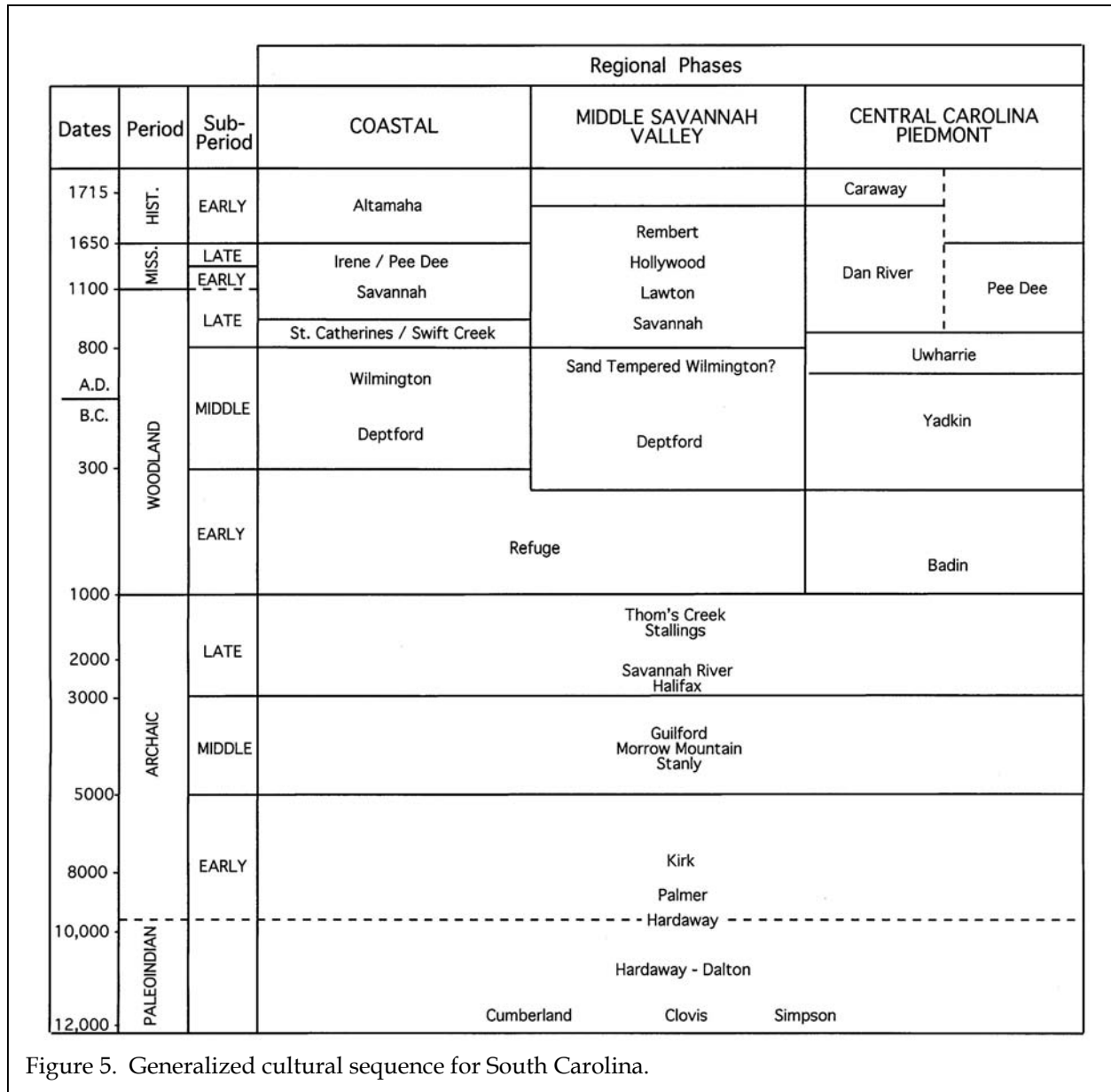


Figure 5. Generalized cultural sequence for South Carolina.

widespread distribution across the state (see also Anderson 1992b:Figure 5.1) with at least several concentrations relating to intensity of collector activity. What is clear is that points are found fairly far removed from the origin of the raw material. Charles and Miche suggest that this may "imply a geographically extensive settlement system" (Charles and Michie 1992:247).

Although data are sparse, one of the more

attractive theories that explains the widespread distribution of Paleoindian sites is the model tracking the replacement of a high technology forager (or HTF) adaptation by a "progressively more generalized band/microband foraging adaption" accompanied by increasingly distinct regional traditions (perhaps reflecting movement either along or perhaps even between river drainages) (Anderson 1992b:46).

Distinctive projectile points include lanceolates such as Clovis, Dalton, perhaps the Hardaway, and Big Sandy (Coe 1964; Phelps 1983; Oliver 1985). A temporal sequence of Paleoindian projectile points was proposed by Williams (1965:24-51), but according to Phelps (1983:18) there is little stratigraphic or chronometric evidence for it. While this is certainly true, a number of authors, such as Anderson (1992a) and Oliver (1985) have assembled impressive data sets. We are inclined to believe that while often not conclusively proven by stratigraphic excavations (and such proof may be an unreasonable expectation), there is a large body of circumstantial evidence. The weight of this evidence tends to provide considerable support.

Unfortunately, relatively little is known about Paleoindian subsistence strategies, settlement systems, or social organization (see, however, Anderson 1992b for an excellent overview and synthesis of what is known). Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

### **Archaic Period**

The Archaic Period, which dates from 10,000 to 3,000 B.P.<sup>2</sup>, does not form a sharp break

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<sup>2</sup> The terminal point for the Archaic is no clearer than that for the Paleoindian and many researchers suggest a terminal date of 4,000 B.P. rather than 3,000 B.P. There is also the question of whether ceramics, such as the fiber-tempered Stallings ware, will be included as Archaic, or will be included with the Woodland. Oliver, for example, argues that the inclusion of ceramics with Late Archaic attributes "complicates and confuses classification and interpretation needlessly" (Oliver 1981:20). He comments that according to the original definition of the Archaic, it "represents a preceramic horizon" and

with the Paleoindian Period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited animal. Archaic period assemblages, exemplified by corner-notched and broad-stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

Many researchers have reported data suggestive of a noticeable population increase from the Paleoindian into the Early Archaic. This has tentatively been associated with a greater emphasis on foraging. Diagnostic Early Archaic artifacts include the Kirk Corner Notched point. As previously discussed, Palmer points may be included with either the Paleoindian or Archaic period, depending on theoretical perspective. As the climate became hotter and drier than the previous Paleoindian period, resulting in vegetational changes, it also affected settlement patterning as evidenced by a long-term Kirk phase midden deposit at the Hardaway site (Coe 1964:60). This is believed to have been the result of a change in subsistence strategies.

Settlements during the Early Archaic suggest the presence of a few very large, and apparently intensively occupied, sites which can best be considered base camps. Hardaway might be one such site. In addition, there were numerous

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that "the presence of ceramics provides a convenient marker for separation of the Archaic and Woodland periods (Oliver 1981:21). Others would counter that such an approach ignores cultural continuity and forces an artificial, and perhaps unrealistic, separation. Sassaman and Anderson (1994:38-44), for example, include Stallings and Thom's Creek wares in their discussion of "Late Archaic Pottery." While this issue has been of considerable importance along the Carolina and Georgia coasts, it has never affected the Piedmont, which seems to have embraced pottery far later, well into the conventional Woodland period. The importance of the issue in the Sandhills, unfortunately, is not well known.

small sites which produce only a few artifacts. These are the "network of tracks" mentioned by Ward (1983:65). The base camps produce a wide range of artifact types and raw materials which has suggested to many researchers long-term, perhaps seasonal or multi-seasonal, occupation. In contrast, the smaller sites are thought of as special purpose or foraging sites (see Ward 1983:67).

Middle Archaic (8,000 to 6,000 B.P.) diagnostic artifacts include Morrow Mountain, Guilford, Stanly and Halifax projectile points. Much of our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work by Jeff Chapman and his students in the Little Tennessee River Valley (for a general overview see Chapman 1977, 1985a, 1985b). There is good evidence that Middle Archaic lithic technologies changed dramatically. End scrapers, at times associated with Paleoindian traditions, are discontinued, raw materials tend to reflect the greater use of locally available materials, and mortars are initially introduced. Associated with these technological changes there seem to also be some significant cultural modifications. Prepared burials begin to more commonly occur and storage pits are identified. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and the Carolinas, where axes, choppers, and ground and polished stone tools are very rare.

Among the most common of all Middle Woodland artifacts is the Morrow Mountain Stemmed projectile point. Originally divided into two varieties by Coe (1964:37,43) based primarily on the size of the blade and the stem. Morrow Mountain I points had relatively small triangular blades with short, pointed stems. Morrow Mountain II points had longer, narrower blades with long, tapered stems. Coe suggested a temporal sequence from Morrow Mountain I to Morrow Mountain II. While this has been rejected by some archaeologists, who suggest that the differences are entirely related to the life-stage of

the point, the debate is far from settled and Coe has considerable support for his scenario.

The Morrow Mountain point is also important in our discussions since it represents a departure from the Carolina Stemmed Tradition. Coe has suggested that the groups responsible for the Middle Archaic Morrow Mountain (and the later Guilford points) were intrusive ("without any background" in Coe's words) into the North Carolina Piedmont, from the west, and were contemporaneous with the groups producing Stanly points (Coe 1964:122-123; see also Phelps 1983:23). Phelps, building on Coe, refers to the Morrow Mountain and Guilford as the "Western Intrusive horizon." Sassaman (1995) has recently proposed a scenario for the Morrow Mountain groups which would support this west-to-east time-transgressive process. Abbott and his colleagues, perhaps unaware of Sassaman's data, dismiss the concept, commenting that the sheer distribution and number of these points "makes this position wholly untenable" (Abbott et al. 1995:9).

The controversy surrounding Morrow Mountain also includes its posited date range. Coe (1964:123) did not expect the Morrow Mountain to predate 6500 B.P., yet more recent research in Tennessee reveals a date range of about 7500 to 6500 B.P. Sassaman and Anderson (1994:24) observe that the South Carolina dates have never matched the antiquity of their more western counterparts and suggest continuation to perhaps as late as 5500 B.P. In fact they suggest that even later dates are possible since it can often be difficult to separate Morrow Mountain and Guilford points.

A recently defined point is the MALA. The term is an acronym standing for Middle Archaic and Late Archaic, the strata in which these points were first encountered at the Pen Point site (38BR383) in Barnwell County, South Carolina (Sassaman 1985). These stemmed and notched lanceolate points were originally found in a context suggesting a single-episode event with variation not based on temporal variation. The

original discussion was explicitly worded to avoid application of a typology, although as Sassaman and Anderson (1994:27) note, the "type" has spread into more common usage. There are possible connections with both the Halifax points of North Carolina and the Benton points of the middle Tennessee River valley, while the "heartland" for the MALA appears confined to the lower middle Coastal Plain of South Carolina.

The available information has resulted in a variety of competing settlement models. Some argue for increased sedentism and a reduction of mobility (see Goodyear et al. 1979:111). Ward argues that the most appropriate model is one that includes relatively stable and sedentary hunters and gatherers "primarily adapted to the varied and rich resource base offered by the major alluvial valleys" (Ward 1983:69). While he recognizes the presence of "inter-riverine" sites, he discounts explanations which focus on seasonal rounds, suggesting "alternative explanations . . . [including] a wide range of adaptive responses." Most importantly, he notes that:

the seasonal transhumance model and the sedentary model are opposite ends of a continuum, and in all likelihood variations on these two themes probably existed in different regions at different times throughout the Archaic period (Ward 1983:69).

Others suggest increased mobility during the Archaic (see Cable 1982). Sassaman (1983) has suggested that the Morrow Mountain phase people had a great deal of residential mobility, based on the variety of environmental zones they are found in and the lack of site diversity. The high level of mobility, coupled with the rapid replacement of these points, may help explain the seemingly large numbers of sites with Middle Archaic assemblages. Curiously, the later Guilford phase sites are not as widely distributed, perhaps suggesting that only certain micro-environments were used (cf. Ward [1983:68-69]

who would likely reject the notion that substantially different environmental zones are, in fact, represented).

Recently Abbott et al. argue for a combination of these models, noting that the almost certain increase in population levels probably resulted in a contraction of local territories. With small territories there would have been significantly greater pressure to successfully exploit the limited resources by more frequent movement of camps. They discount the idea that these territories could have been exploited from a single base camp without horticultural technology. Abbott and his colleagues conclude, "increased residential mobility under such conditions may in fact represent a common stage in the development of sedentism" (Abbott et al. 1995:9).

From excavations at a Sandhills site in Chesterfield County, South Carolina, Gunn and his colleague (Gunn and Wilson 1993) offer an alternative model for Middle Archaic settlement. He accepts that the uplands were desiccated from global warming, but rather than limiting occupation, this environmental change made the area more attractive for residential base camps. Gunn and Wilson suggest that the open, or fringe, habitat of the upland margins would have been attractive to a wide variety of plant and animal species.

The Late Archaic, usually dated from 6,000 to 3,000 or 4,000 B.P., is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued to intensively exploit the uplands much like earlier Archaic groups with, the bulk of our data for this period coming from the Uwharrie region in North Carolina.

One of the more debated issues of the Late Archaic is the typology of the Savannah River Stemmed and its various diminutive forms. Oliver, refining Coe's (1964) original Savannah River Stemmed type and a small variant from Gaston (South 1959:153-157), developed a

complete sequence of stemmed points that decrease uniformly in size through time (Oliver 1981, 1985). Specifically, he sees the progression from Savannah River Stemmed to Small Savannah River Stemmed to Gypsy Stemmed to Swannanoa from about 5000 B.P. to about 1,500 B.P. He also notes that the latter two forms are associated with Woodland pottery.

This reconstruction is still debated with a number of archaeologists expressing concern with what they see as typological overlap and ambiguity. They point to a dearth of radiocarbon dates and good excavation contexts at the same time they express concern with the application of this typology outside the North Carolina Piedmont (see, for a synopsis, Sassaman and Anderson 1990:158-162, 1994:35).

In addition to the presence of Savannah River points, the Late Archaic also witnessed the introduction of steatite vessels (see Coe 1964:112-113; Sassaman 1993), polished and pecked stone artifacts, and grinding stones. Some also include the introduction of fiber-tempered pottery about 4000 B.P. in the Late Archaic (for a discussion see Sassaman and Anderson 1994:38-44). This innovation is of special importance along the Georgia and South Carolina coasts, but seems to have had only minimal impact in the uplands of South or North Carolina.

There is evidence that during the Late Archaic the climate began to approximate modern climatic conditions. Rainfall increased resulting in a more lush vegetation pattern. The pollen record indicates an increase in pine, which reduced the oak-hickory nut masts that previously were so widespread. This change probably affected settlement patterning since nut masts were now more isolated and concentrated. From research in the Savannah River valley near Aiken, South Carolina, Sassaman has found considerable diversity in Late Archaic site types with sites occurring in virtually every upland environmental zone. He suggests that this more complex settlement pattern evolved from an increasingly complex socio-economic system. While it is

unlikely that this model can be simply transferred to the Sandhills of South Carolina without an extensive review of site data and micro-environmental data, it does demonstrate one approach to understanding the transition from Archaic to Woodland.

### **Woodland Period**

As previously discussed, there are those who see the Woodland beginning with the introduction of pottery. Under this scenario the Early Woodland may begin as early as 4,500 B.P. and continued to about 2,300 B.P. Diagnostics would include the small variety of the Late Archaic Savannah River Stemmed point (Oliver 1985) and pottery of the Stallings and Thoms Creek series. These sand tempered Thoms Creek wares are decorated using punctations, jab-and-drag, and incised designs (Trinkley 1976). Also potentially included are Refuge wares, also characterized by sandy paste, but often having only a plain or dentate-stamped surface (Waring 1968). Others would have the Woodland beginning about 3,000 B.P. and perhaps as late as 2,500 B.P. with the introduction of pottery which is cord-marked or fabric-impressed and suggestive of influences from northern cultures.

There remains, in South Carolina, considerable ambiguity regarding the pottery series found in the Sandhills and their association with coastal plain and piedmont types. The earliest pottery found at many sites may be called either Deptford or Yadkin, depending on the research or their inclination at any given moment.

The Deptford phase, which dates from 3050 to 1350 B.P., is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Inner Coastal Plain/Sand Hills, although sandy, acidic soils preclude statements on the

subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98; see also Sassaman 1993 for similar data recovered from 38AK157).

Further to the north and west, in the Piedmont, the Early Woodland is marked by a pottery type defined by Coe (1964:27-29) as Badin.<sup>3</sup> This pottery is identified as having very fine sand in the paste with an occasional pebble. Coe identified cord-marked, fabric-marked, net-impressed, and plain surface finishes. Beyond this pottery little is known about the makers of the Badin wares and relatively few of these sherds are reported from South Carolina sites.

Somewhat more information is available for the Middle Woodland, typically given the range of about 2,300 B.P. to 1,200 B.P. In the Piedmont and even into the Sand Hills, the dominant Middle Woodland ceramic type is typically identified as the Yadkin series. Characterized by a crushed quartz temper the pottery includes surface treatments of cord-marked, fabric-marked, and a very few linear check-stamped sherds (Coe 1964:30-32). It is regrettable that several of the seemingly "best" Yadkin sites, such as the Trestle site (31An19) explored by Peter Cooper (Ward 1983:72-73), have never been published.

Yadkin ceramics are associated with

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<sup>3</sup> The ceramics suggest clear regional differences during the Woodland which seem to only be magnified during the later phases. Ward (1983:71), for example, notes that there "marked distinctions" between the pottery from the Buggs Island and Gaston Reservoirs and that from the south-central Piedmont.

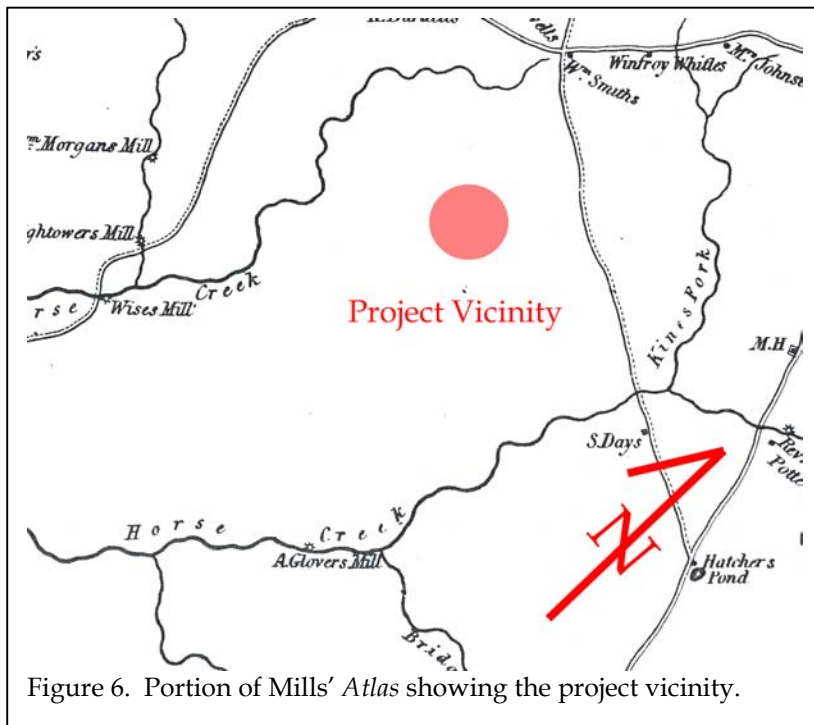
medium-sized triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least 1650 B.P. coexisted with this Triangular Tradition. The Yadkin in South Carolina has been best explored by research at 38SU83 in Sumter County (Blanton et al. 1986) and at 38FL249 in Florence County (Trinkley et al. 1993)

In some respects the Late Woodland (1,200 B.P. to 400 B.P.) may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500-700 years. From the vantage point of the Middle Savannah Valley Sassaman and his colleagues note that, "the Late Woodland is difficult to delineate typologically from its antecedent or from the subsequent Mississippian period" (Sassaman et al. 1990:14). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

### Historic Overview

The survey tract (presently in Aiken County) is in what is historically known as the Edgefield District. Although exploration of the Savannah River Valley began as early as the sixteenth century (DePratter 1989), substantial settlement of the area did not begin until after the Yamassee Indian War (1715-1718). By the mid-eighteenth century, cattle ranchers and subsistence farmers cleared land and established small farms and plantations (Kovacik and Winberry 1987:69-71), and by the eve of the American Revolution, cattle ranching was well established in the area (Brooks 1981).

In 1826, Mills remarks that the Edgefield district was gradually settled, much like neighboring districts (Mills 1972:519 [1826]). Edgefield was settled by mostly Irish, Scotch, and Dutch moving in from Virginia and North



Carolina (Mills 1972:520 [1826]). Mills, mentioned that,

There is nothing that distinguishes the settlement of Edgefield from that of other districts in the upper and middle country. They were all gradually settled as the tide of emigration rolled from the north and east (Mills 1972:519-520 [1826]).

While Tory forces were quite active in Edgefield District during the American Revolution, only two skirmishes took place in Aiken County. These were in conjunction with the American capture of Augusta from the British, and occurred at Beech Island and Galphin's Fort (Brooks 1984).

By 1800, the Edgefield District population consisted of 13,063 whites, 5,006 slaves, and 61 free blacks, for a total of 18,130. By 1820, the population had increased to 25,119, including 12,864 whites and 19,198 African American slaves, and 57 free blacks (Mills 1972:527, 664 [1826]). By

1850, the population had increased substantially. There were 16,252 whites, 22,725 slaves, and 285 free blacks, totaling 39,262. In the years preceding the Civil War, the population growth in the state slowed considerably, as planters and farmers left the exhausted soils of South Carolina and moved to Georgia, Alabama, and Mississippi (Kovacik and Winberry 1987:92-92).

Mills' Atlas (Figure 6) shows the project area, situated west of Kines Fork, to be vacant lands. The few settlements shown seem to cluster on the main roads running through the district.

The area saw some activity during the Civil War.

General H.J. Kilpatrick of the Union Army fought General Joseph Wheeler's troops at Blackville, Williston, and Aiken during his threat to Augusta (Wallace 1953:548).

It was not until the end of the Civil War that Aiken came under attack. With the fall of Savannah, General O.H. Hill was placed in charge of the Confederate forces in Augusta, where it was thought that Sherman's troops would surely head in order to destroy the vast stores of cotton. By late January 1865, Union forces were rapidly advancing through South Carolina, having taken Pocotaligo on January 14th and breaking the Charleston-Savannah railway for the first time during the war. The Confederate forces established a defensive line near Three Runs in Aiken County, near where the Savannah River Plant site is today. The Union forces reached Allendale by the 31st and succeeded in taking Blackville, breaking the Charleston-Hamburg Railroad connection.

Union troops, including the 14th and the 20th Corps as well as Major General Hugh Judson Kilpatrick's cavalry, began following the railway

line to the west, leading directly to Aiken. By February 10, Kilpatrick's cavalry reached Johnson's Turnout (at what is today Montmorenci), while the Confederate forces hastily established a line about two miles east of Aiken. Practicing total war, the countryside was pillaged and the railway was destroyed. Kilpatrick remarked in a message to Sherman that "this is splendid country; plenty of forage and supplies" (quoted in Boylston n.d.:8). Efforts to advance through Aiken were foiled by Confederate troops under the command of General Joseph Wheeler. While Aiken was saved, as was the Graniteville cotton mill, and the stores of cotton in August, South Carolina was lost.

Exhausted by war and stunned by the upheaval of their economic and social system the residents of Orangeburg District, as well as the rest of the state, were in a state of confusion and hardship. Immediately after the Civil War cotton prices peaked, causing many Southerners to plant cotton again, in the hope of recouping losses from the War. The single largest problem across the South, however, was labor. While some freedmen stayed on to work, others, apparently many others, left.

The hiring of freedmen began immediately after the war, with variable results. The Freedmen's Bureau attempted to establish a system of wage labor, but the effort was largely tempered by the enactment of the Black Codes by the South Carolina Legislature in September 1865. These Codes allowed nominal freedom, while establishing a new kind of slavery, severely restricting the rights and freedoms of the black majority (see Orser 1988:50). Added to the Codes were oppressive contracts that reinforced

the power of the plantation owner and degraded the freedom of the Blacks. The freedmen found power, however, in their ability to break their contracts and move to a new plantation, beginning a new contract. With the high price of cotton and the scarcity of labor, this mechanism caused tremendous agitation to the plantation owners.

Gradually owners turned away from wage labor contracts to two kinds of tenancy -- sharecropping and renting. While very different, both succeeded in making land ownership very difficult, if not impossible, for the vast majority of Blacks. Sharecropping required the tenant to pay

Table 1  
Systems of Tenure

	Share-Cropping	Share Renting	Cash Renting
Landlord furnishes:	land housing fuel tools work stock seed half of fertilizer feed for stock	land housing fuel 1/2 or 1/3 fertilizer	land housing fuel
Tenant furnishes:	labor half of fertilizer	labor work stock feed for stock tools seed 3/4 or 2/3 fertilizer	labor work stock feed for stock tools seed fertilizer
Landlord receives:	1/2 of crop	1/4 or 1/3 of crop	fixed amount in cash or lint cotton
Tenant receives:	1/2 of crop	3/4 or 2/3 of crop	entire crop less fixed amount

his landlord part of the crop produced, while renting required that he pay a fixed rent in either crops or money. In sharecropping the tenant supplied the labor and one-half of the fertilizer, the landlord supplied everything else -- land, house, tools, work animals, animal feed, wood for fuel, and the other half of the needed fertilizer. In return, the landlord received half of the crop at harvest. This system became known as "working



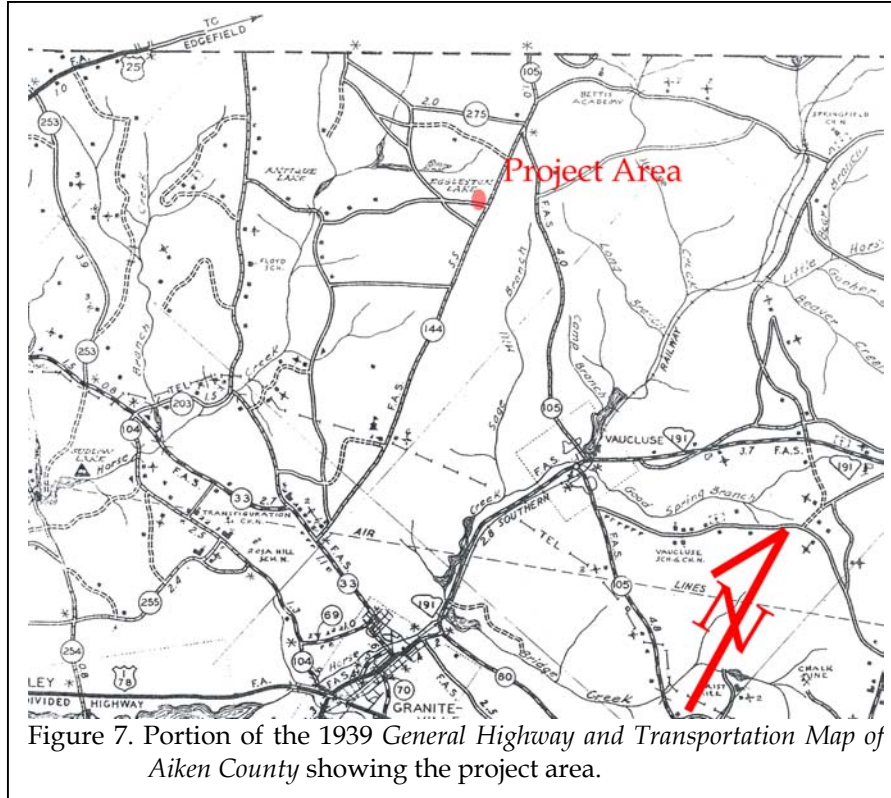


Figure 7. Portion of the 1939 General Highway and Transportation Map of Aiken County showing the project area.

on halves," and the tenants as "half hands," or "half tenants."

In share renting, the landlord supplied the land, housing, and either one-quarter or one-third of the fertilizer costs. The tenant supplied the labor, animals, animal feed, tools, seed, and the remainder of the fertilizer. At harvest the crop was divided in proportion to the amount of fertilizer that each party supplied. A number of variations on this occurred, one of the most common being "third and fourth," where the landlord received one-fourth of the cotton crop and one-third of all other crops. In cash renting the landlord provided the land and housing, with the renter providing everything else and paying a fixed per-acre rent in cash.

Aiken was created in 1871 when parts of Edgefield, Lexington, Barnwell, and Orangeburg counties were joined.

In the 1880s, Aiken County had three mills (Graniteville, Vaucluse, and Langley). Cotton was

being produced in large amounts and it was estimated that the average cost of producing merchantable cotton was about eight cents a pound and 40 dollars to bale 500 pounds. It appears that a large portion of the manufacturing in the county was milling grain or producing lumber and turpentine. Of the 31 other manufacturing establishments there were 12 grist mills, 12 lumber mills, 6 turpentine establishments, and one paper mill (Anonymous 1884). There was, in addition, one granite quarry, associated with Graniteville Manufacturing Company.

Cotton continued to be the major crop in the area. In 1900, Aiken reported 63,127 acres devoted to cotton (representing nearly a third of the county's improved farm acreage) with a yield of 28,223 bales, placing it 11th in the state. The only crop with more acreage was corn, planted on 75,966 acres. Corn production, at 703,080 bushels. Only Orangeburg, Sumter, and Barnwell produced more corn than Aiken.

The 1939 General Highway and Transportation Map of Aiken County (Figure 7) reveals no structures near the project area.

## RESEARCH METHODS AND FINDINGS

### Archaeological Field Methods and Findings

The initially proposed field techniques for the substation lot involved the placement of shovel tests at 100-foot intervals along transects placed at 100-foot intervals along the existing transmission line.

All soil would be screened through  $\frac{1}{4}$ -inch mesh, with each test numbered sequentially. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1.0 foot or until subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

Should sites (defined by the presence of three or more artifacts from either surface survey or shovel tests within a 50 foot area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

Transects were placed along the existing transmission line from east to west with shovel tests running north. A total of 34 shovel tests were

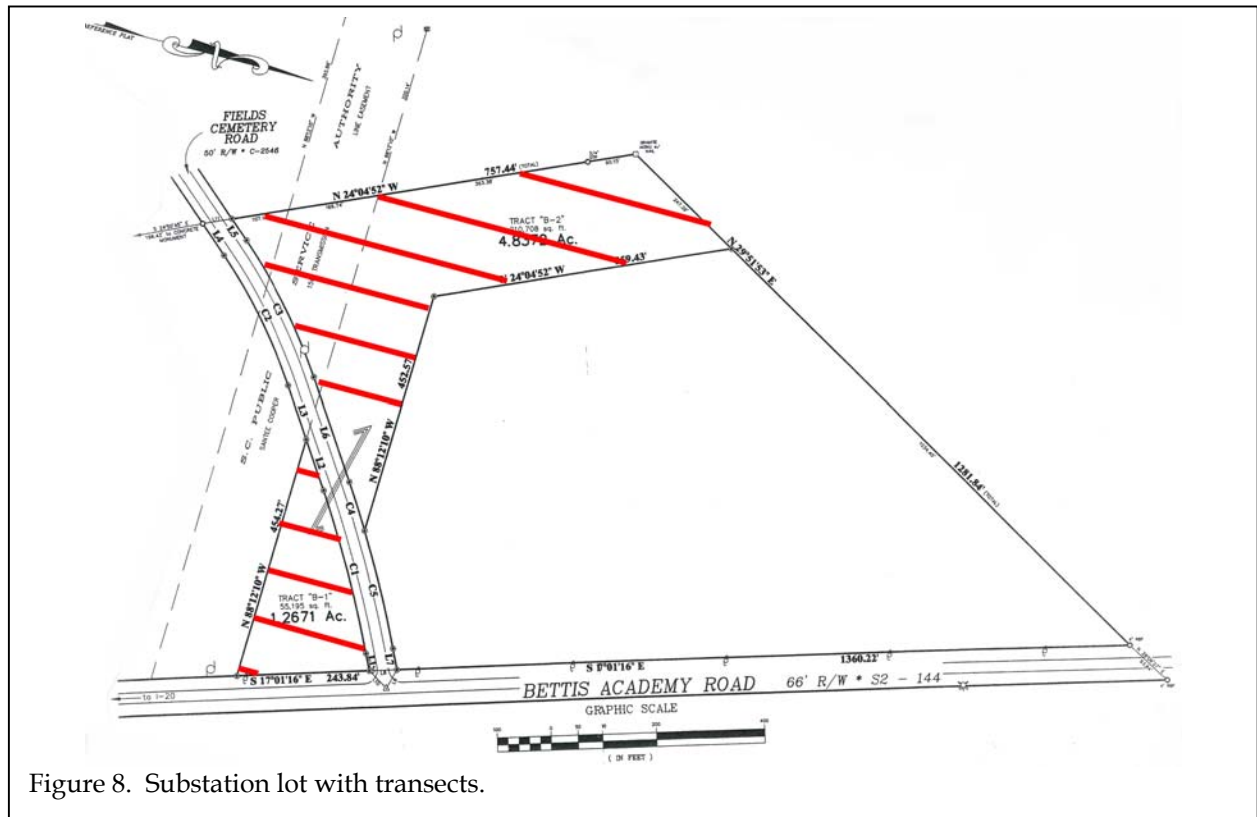


Figure 8. Substation lot with transects.

excavated within the project area.

Sites would be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead agency in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

Analysis of collections would follow professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains.

Nevertheless, the archaeological survey of the substation lot failed to identify any remains. This is most likely due to the excessively drained soils and distance from a permanent water source.

### **Architectural Survey**

As previously discussed, we elected to use a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects that appeared to have been constructed before 1950. Typical of such projects, this survey recorded only those which have retained "some measure of its historic integrity" (Vivian n.d.:5) and which were visible from public roads.

For each identified resource, we would complete a Statewide Survey Site Form and at least two representative photographs were taken. Permanent control numbers would be assigned by the Survey Staff of the S.C. Department of Archives and History at the conclusion of the study. The Site Forms for the resources identified during this study would be submitted to the S.C. Department of Archives and History.



Figure 9. Shovel testing in the project area.

### **Site Evaluation and Findings**

Archaeological sites would be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

the quality of significance in



American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

a. that are associated with events that have made a significant contribution to the broad patterns of our history; or

b. that are associated with the lives of persons significant in our past; or

c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. that have yielded, or may be likely to yield, information important in prehistory or history.

*National Register Bulletin 36* (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or

categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;

- identification of the historic context applicable to the site, providing a framework for the evaluative process;

- identification of the important research questions the site might be able to address, given the data sets and the context;

- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and

- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been



Figure 10. View of the existing transmission line.

developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on an archaeological site's ability to address significant research topics within the context of its available data sets.



Figure 11. View of Fields Cemetery (519-1005).

The survey failed to identify any additional sites that were in the APE, which contain enough integrity to be eligible for the National Register of Historic Places beyond those identified during the 1988 comprehensive survey (Fick and Schneider 1988). The identified Fields Cemetery (519-1005) was revisited, but still recommended not eligible for the National Register (Figure 11).

## CONCLUSIONS

This study involved the examination of approximately 6.1 acres of land for a substation in northwestern Aiken County. This work, conducted for Mr. Tommy L. Jackson of Central Electric Power Cooperative examined archaeological sites and cultural resources found on the proposed project tract and is intended to assist Aiken Electric Cooperative in complying with their historic preservation responsibilities.

As a result of this investigation, no archaeological sites were found in the survey area. This is likely the result of the excessively drained soils found throughout the project area and the absence of nearby permanent water sources.

A survey of public roads within 0.5 mile revealed no structures that retain the integrity for

integrity for the National Register of Historic Places.

It is possible that archaeological remains may be encountered during construction activities. As always, contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).



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